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NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

NAVY STOCK ACCOUNT (NSA)
MATERIAL EXPENDITURE ERRORS

by

Anacleto M. Magsombol

December 1990

Thesis Advisor: James M. Fremgen

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This thesis was an investigation of the causes that prevented large numbers of Pacific Fleet units' NSA expenditures from processing through the Fleet Resource Accounting Module (FRAM) at the Fleet Accounting and Disbursing Center Pacific (FAADCPAC), San Diego, CA. Six consecutive months' NSA expenditure errors from December 1989 to May 1990 were used in the analysis. The researcher concluded that the major cause of the problem was the use of wrong fund codes by the fleet units when they requisitioned their materials from the shore supply activities. The researcher identified inadequate training of shipboard supply personnel and the lack of an edit/validation process at the shore supply activities,

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Navy Stock Account (NSA)
Material Expenditure Errors

by

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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

This thesis was an investigation of the causes that prevented large numbers of Pacific Fleet units' NSA expenditures from processing through the Fleet Resource Accounting Module (FRAM) at the Fleet Accounting and Disbursing Center Pacific (FAADCPAC), San Diego, CA. Six consecutive months' NSA expenditure errors from December 1989 to May 1990 were used in the analysis. The researcher concluded that the major cause of the problem was the use of wrong fund codes by the fleet units when they requisitioned their materials from the shore supply activities. The researcher identified inadequate training of shipboard supply personnel and the lack of an edit/validation process at the shore supply activities, as the major deficiencies. Recommendations designed to prevent large numbers of NSA expenditure errors and to improve the current accounting system were provided.

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I. INTRODUCTION

A. BACKGROUND

The Navy Stock Account (NSA) materials are materials procured with Navy Stock Fund (NSF) money [Ref. 1:p. 1-2]. They are stocked and available for issue at the Navy's stock points and on board Special Accounting Class (SAC) 207 ships (i.e., submarine tenders (AS), combat stores ships (AFS), aircraft carriers (CV), and amphibious assault ships (LHA)). Once they are issued to end-use customers, the issuing activity receives reimbursement by charging the customer's operating budget/target and crediting the Navy Stock Fund. The charges are reported to the Financial Information Processing Center (FIPC)/Authorization Accounting Activity (AAA) using the Report of Fund Authorization Charges (NAVCOMPT Form 2074), accompanied by Financial Detail Cards (NAVSUP 1162). These transactions are known as NSA material expenditures.

The Fleet Accounting and Disbursing Center, Pacific (FAADCPAC), one of the Navy's Financial Information Processing Centers (FIPC), performs both accounting and disbursing functions for all Pacific Fleet units and selected shore activities. AAA is the accounting section of FIPC. One of FAADCPAC's responsibilities is to process intra-Navy material issue billings (also known as Navy Stock Account (NSA) expenditures) coming from the Navy's Inventory Control Points (ICPs) and stock points. These expenditure documents are the

result of material issue transactions in response to the fleet units' MILSTRIP (Military Standard Requisitioning and Issue Procedure) requisitions. They are processed to liquidate the outstanding obligations which are maintained in FAADCPAC's Fleet Resource Accounting Module (FRAM).

The FRAM system starts the reconciliation process by first validating the data elements of the expenditure document. When the expenditure passes the validation process, the system will begin searching for the matching obligation. Documents that fail the validation will appear on the monthly expenditure error listings, which have to be investigated and manually processed by the accounting technicians.

Expenditures that fail the validation process are called expenditure errors. Those that pass, but are unable to find matching obligations, are known as unmatched expenditures. Historically the Navy has had great difficulty in processing expenditures due to the large number of expenditure errors and unmatched expenditures being received from the billing activities.

B. NEED FOR A STUDY ON EXPENDITURE ERRORS AT FAADCPAC

FAADCPAC is responsible for maintaining the financial data bases and for the recording and reporting of funds allotted to the Pacific Fleet units it services. One of its functions is accounting for O&MN funds of these units, from the submission of requisitions for stock numbered material carried by the Navy supply system through the reporting of expenditures

up the Navy chain of command and to the Treasury. As mentioned earlier, once the requisitioned material is issued, the issuing activity will send the expenditure document to the customer's assigned FIPC/AAA, which will attempt to match the expenditure with the previously established obligation. These expenditures are validated by the computer prior to the matching process to ensure that data elements are valid and compatible. During this validation process, FAADCPAC experiences a large number of rejected transactions due to one or more invalid and incompatible data elements. These errors prevent the expenditures from entering into the matching process, thus requiring human intervention and manual reconciliation. These problems cause the FIPC/AAA enormous numbers of man-hours of error processing, delay the external reporting of expenditures, increase the number of aged unfilled order listings (AUOL) of the operating units and provide the Type Commanders (TYCOM) with an inaccurate balance in their operating budgets.

C. PURPOSE, LIMITATIONS AND ASSUMPTIONS

FAADCPAC requested that a study be conducted to determine reasons which prevent the expenditures from processing correctly when they arrive at FIPC/AAA. The purpose of this research is to find those reasons. The research will focus on those activities that interact with the reconciliation process. Some questions addressed throughout the research are these: What type of errors prevent the matching process?

Which activities created the most errors? To what extent are the individual activities responsible for the reconciliation difficulties and what can be done to improve the current accounting system?

The following limitations will be observed during this study:

1. Only Navy Stock Account (NSA) material expenditure errors between December 1989 and May 1990 will be evaluated.
2. FAADCPAC's expenditure error listings will be used to extract error samples.

For the purpose of this study the following assumptions will be made:

1. The Cognizance Symbol (COG) assigned to stock numbered material is correct.
2. FAADCPAC's fleet master dictionary has updated information which is necessary to verify data elements during the validation process.

D. METHOD OF RESEARCH

The primary source of information for this study was the Fleet accounting section of FIPC/AAA, a component of FAADCPAC, located at San Diego, California. Six consecutive months' transactions from FAADCPAC's NSA expenditure error listings were examined and analyzed. There are 17,225 NSA transaction errors from December 1989 to May 1990 which are used in the analysis. Close liaison with FIPC/AAA personnel was maintained throughout the research and writing phases. Interviews were conducted with supply personnel currently assigned on ships, other FPCs/AAAs and students at the Naval Postgraduate

School (NPS) who recently completed shipboard supply duties. Several Navy publications about material requisitioning, issuing and billing procedures were also consulted. Research visits to FAADCPAC, Naval Supply Center (NSC) San Diego, ships in the San Diego area and NSC Oakland provided the foundation for this report.

E. THESIS ORGANIZATION

The remainder of this thesis is organized as follows:

Chapter II provides background information on the fleet material requisitioning, billing and reporting process. It describes the flow of information from the afloat units and air squadrons to the Fleet Accounting and Disbursing Center.

Chapter III describes the methodology used in conducting the research. The methods include review of current Navy publications, examination of six consecutive months of NSA errors, interviews, and personal observations.

Chapter IV presents the data collected. It also contains an analysis and interpretation of these data.

Chapter VI provides the conclusion, summary and recommendations.

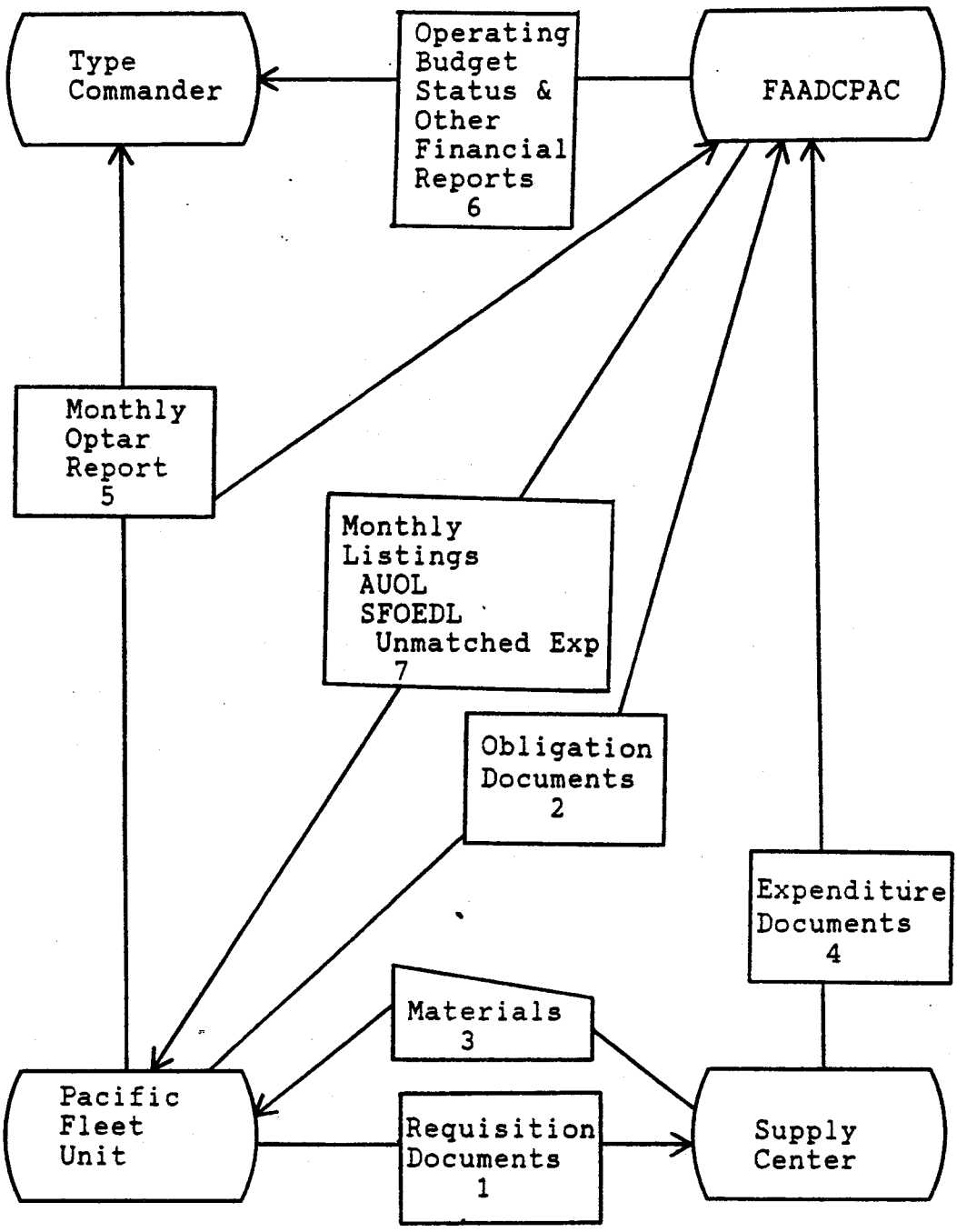
II. BACKGROUND

In order to understand the NSA expenditure process and the possible causes of errors, this chapter will discuss the accounting transaction cycle, including the flow of financial information. The discussion will be limited to Navy Stock Account materials issued to the fleet units and billed by Navy stock points and Inventory Control Points. It will cover the flow of information only from the time the requisition is prepared by the customer to the time the obligation is liquidated at the FIPC/AAA, such as FAADCPAC. The flow of accounting data is shown in Illustration 1.

A. PREPARATION AND SUBMISSION OF REQUISITION

The normal accounting transaction cycle begins with a requirement for material. Material is identified by a National Stock Number (NSN) and a Cognizance Symbol (COG). Once a requirement is identified, a requisition document is prepared and submitted to the supply activity (step 1 of Illustration 1) in accordance with the Military Standard Requisitioning and Issue Procedures (MILSTRIP). The obligation is recorded in the ship's Operating Target (OPTAR) log during requisition preparation. One copy of the requisition document will be forwarded to FAADCPAC (step 2 of Illustration 1) to record the obligation in the FRAM system.

ILLUSTRATION 1. FLOW OF ACCOUNTING DATA



MILSTRIP requisitioning is based upon the use of a coded, single line item document for each supply transaction [Ref. 2:p. 3-10]. The requisition document is normally prepared in an 80 column card format. Entries are made as follows:

Card Column	Field Legend
1 - 3	Document Identifier
4 - 6	Routing Identifier
7	Media and Status Code
8 -22	National Stock Number
23-24	Unit of Issue
25-25	Quantity
30-43	Document Number
30	Service Designator
31-35	Requisitioner
36-39	Julian Date
40-43	Serial Number
44	Demand Code
45-50	Supplementary Address
51	Signal Code
52-53	Fund Code
54-56	Distribution Code
54	Designated Monitoring Activity
55-56	Cognizance Symbol
57-59	Project Code
60-61	Priority
62-64	Required Delivery Date
65-66	Advice Code
67-73	Normally left blank on requisition
74-80	Extended Price

Requisitions are normally submitted to shore supply activities or to supply afloat units (i.e., SAC 207 ships) by message, mail, personal delivery or telephone. They are documented in Navy standard form (i.e., DD 1348, NAVSUP 1250-1) computer generated 80 column cards or hard copy message.

Submarines supported by a submarine tender (AS) and air squadrons on board an aircraft carrier (CV) normally submit

their requisitions to the supporting tender and aircraft carrier, respectively. If material is not available, then the requisition is submitted to the designated shore supply activity. Other afloat units submit their requisitions directly to the designated shore supply activity or to the Mobile Logistic Support Force ships (supply ships) when deployed.

Afloat units, except Special Accounting Class (SAC) 207 ships, normally use Operation and Maintenance, Navy (O&MN) funds, thus citing end-use fund codes on their requisitions for materials. SAC 207 ships maintain stocks of Navy Stock Account (NSA) materials, use Navy Stock Fund dollars, and cite SAC 207 fund codes in requisitioning. Material issued by shore supply activities to a Special Accounting Class (SAC 207) ship is classified as an Other Supply Officer (OSO) transfer. It is a transfer from one Navy Stock Fund activity to another.

B. REQUISITION PROCESSING AND BILLING AT NAVY STOCK POINTS

Requisitions received by shore supply activities are processed through the Stock Point Requisition Processing System. The information on the 80 column card document submitted by the requisitioning unit is loaded to the system, which interprets the coded data elements. If the NSN cited in card columns 8-22 is in stock, an issue/receipt document will be created. This issue/receipt document will be used to pull the material from the warehouse and ship it to the

requisitioner (step 3 of Illustration 1). Once the requisition is coded as being "released for issue/shipment" ("BA" status), the bill is prepared for the quantity and unit price of the item available for issue.

The signal code on the requisition document tells the issuing activity where to ship the material and whom to charge, which is either the activity in the requisitioner block (columns 31-35) or the supplementary address (columns 45-50). The fund code (columns 52-53) identifies the chargeable operating budget and the appropriate expense element or a management subdivision of an expense element [Ref. 3:p. A-I-4]. It is used to charge the appropriate type commander's funds and to identify the nature of the expense. The fund code also identifies the germane FIPC/AAA. Service designator (column 30) describes the requisitioner in columns 31-35 as either a unit of the Atlantic Fleet, Pacific Fleet or a shore activity.

An expenditure occurs when the supply system issues materials or a disbursing officer makes payment citing an appropriation [Ref. 3:p. A-I-3]. Expenditure documents are forwarded to the Fleet Accounting and Disbursing Center by the issuing or paying activity (step 4 of Illustration 1) and will be used in the process of matching unfilled orders (obligations) with expenditures and in posting the expenditures against an activity's funds. When the Navy stock point issues NSA materials to fleet end-users, the issuing activity

reimburses the Navy Stock Fund by charging the appropriated funds (normally Operation and Maintenance, Navy (O&MN)) based on the information cited on the requisition document. The combination of service designator code, fund code and fiscal year on the requisition specifically identifies the appropriate accounting classification (appropriation, subhead, operating budget and Authorization Accounting Activity) and expense element [Ref. 3:p. A-II-5].

Issues of NSA materials to Navy customers are billed via a Report of Fund Authorization Charges (NAVCOMPT Form 2074), with one supporting Financial Detail Card (NAVSUP 1162) for each material issue processed against a MILSTRIP requistion [Ref. 4:p. L-13]. NAVCOMPT Form 2074 is also accompanied by a matching Labor Roll/Material Charges and Credits (NAVCOMPT Form 2051). NAVCOMPT 2051 is used to effect charges to appropriations, subheads, allotments, and sub-allotments for stock fund material issued and to credit the Navy Stock Fund for the total amount of the charges [Ref. 5:p. 6-110]. NAVCOMPT 2074 is used to report to the accounting activity the end-use material charges and credits reported on NAVCOMPT 2051. The Financial Detail Cards (NAVSUP 1162s) accompanying NAVCOMPT 2074 are used to liquidate the outstanding obligations identified by the document number and amount on each detailed card.

C. EXPENDITURE PROCESSING AT FAADCPAC

When NAVCOMPT 2051 is received at FAADCPAC, it is processed through the Financial Reporting System (FRS) for reporting up the Navy chain of command and to the Treasury. This process is referred to as "Register 8" billing. Under "Register 8" processing, all transactions are initially charged to the Type Commander's operating budget. The individual expenditure will be recorded to the appropriate unit's account when the NAVCOMPT 2074s are processed through the FRAM system.

NAVCOMPT 2074s are received at FAADCPAC in different media forms. They arrive in tapes, cards, Naval messages, listings and floppy discs. They come with summaries and detailed transactions. Prior to loading the 2074 data to the Fleet Resource Accounting Module (FRAM) at FAADCPAC, a complete reconciliation is conducted to ensure that all the counts and money value of the weekly details are balanced and matched with the monthly summaries and details. Once 2074 data are loaded to the FRAM, the process of matching expenditures with obligations will begin.

The FRAM system validates some data elements of the 2074 prior to the matching process. It checks for the validity of the Unit Identification Code (UIC), Fund Code, Julian Date and Service Designator. It also checks for the compatibility of fund code with UIC and Cognizance Symbol of the material requisitioned. Any transactions that fail the validation

process are rejected and appear on the expenditure error listings.

All transactions that appear on the expenditure error listings will be reviewed, investigated and corrected (if possible) by the accounting technicians at the FIPC/AAA. Unresolved transactions will be returned to the billing activity as a "bill-back". "Bill-back" is the process of reversing the transaction by charging the Navy Stock Fund and crediting the Type Commander's operating budget.

The expenditures that pass the validation process will be matched with outstanding obligations. The outstanding obligations with matching expenditures will be liquidated and completed. Unmatched expenditures will still be charged and reported to the appropriate activity. Activities receiving unmatched expenditures must obligate additional money to cover the charges, thus reducing their funds available for other requirements. These charges must be investigated and challenged if they are invalid. Obligations without matching expenditures will remain outstanding until the appropriation lapses, which is normally 3 years for O&MN funds, and are then merged to the successor account (M account).

The Pacific fleet unit sends its Budget Optar Report (BOR) to FAADCPAC and the Type Commander (step 5 of illustration 1) at the end of each month. The BOR contains the ship's total obligations and the current balance of its available funds. FAADCPAC sends the TYCOM's budget status and other financial

reports to the Type Commander (step 6 of illustration 1) also at the end of the month. The fleet unit receives various monthly financial listings from FAADCPAC (step 7 of illustration 1), which include the Ship's Filled Order Expenditure Data List (SFOEDL) that contains unmatched expenditures.

FAADCPAC is currently experiencing a high rate of NSA expenditure errors. The main thrust of this research is to find the problems preventing expenditure documents from processing and identify the activities responsible for most of the errors.

III. RESEARCH METHODOLOGY

The purpose of this study is to identify the problems which prevent large numbers of expenditure transactions from processing through FAADCPAC's FRAM system. The research for the study included a review of applicable Navy manuals and instructions, collection and review of NSA expenditure errors, personal and telephone interviews, and personal observations.

A. REVIEW OF NAVY PUBLICATIONS

In order to understand the flow of transactions which was discussed in Chapter II, it was necessary to review the publications and instructions about fleet requisitioning and billing procedures. The following publications were consulted: Financial Management Procedures for SUADPS-207 and SUADPS-AV(207) Activities (NAVSUP Publication 540) [Ref. 1], Afloat Supply Procedures (NAVSUP Publication 485) Ref. 2], Financial Management of Resources, Operating Forces (NAVSO Publication 3013-2) [Ref. 3], Practical Comptrollership, Naval Postgraduate School [Ref. 4], Financial Inventory Accounting, Billing and Reporting (NAVCOMPT Manual Volume VIII) [Ref. 5], SUADPS-AV(207) Support Procedures (NAVSUP Publication 519) [Ref. 6], SUADPS-207 Support Procedures (NAVSUP Publication 522) [Ref. 7], and Accounting Classifications (NAVCOMPT Manual Volume II) [Ref. 8]. These manuals contain detailed

In order to reinforce the knowledge gained through those means, close personal observations of the actual operations were performed during visits in all research areas. Additional ideas obtained in this way, together with the knowledge gained from the past work experiences of the researcher, made it easier to gather and analyze the necessary information that could provide answers to the research questions.

IV. DATA COLLECTION AND ANALYSIS

This chapter describes the process of collecting expenditure error data and the method used to analyze the data. NSA expenditure errors for six consecutive months (December 1989 - May 90) were used as the sample in conducting the analysis. There were 17,225 NSA expenditures received at FAADCPAC that did not pass the validation process during this six month period. The main reason that prevented large numbers of expenditures from processing through FAADCPAC's FRAM system was the use of wrong fund codes by afloat units in requisitioning materials.

A. DATA COLLECTION

The data utilized in this analysis were collected from the NSA expenditure error listings which were produced by the FRAM system at FAADCPAC. As mentioned in Chapter II, the FRAM system has an editing function that validates several data elements of the input expenditure document, including the following: UIC, fund code, Julian Date of the document number, compatibility of fund code with UIC, and compatibility of fund code with selected COG. It generates a monthly error listing, which contains individual expenditures that failed the validation process. There were 17,225 NSA expenditure errors from December 1989 to May 1990. These were used as the sample to conduct the analysis.

The erroneous expenditures were coded by the natures of errors. They were grouped into four types, namely, errors in the fund code, UIC, Julian date and serial number.

Fund code errors include a valid fund code that is not authorized to be used by the requisitioning unit, a fund code not authorized to be used in ordering selected type of materials and an invalid fund code (fund code not listed in NAVSO P-3013-2).

UIC errors include an invalid UIC (UIC not listed in Chapter 5 of NAVCOMPT Manual Volume II), a valid UIC not serviced by FAADCPAC (UIC not listed in FAADCPAC's Fleet Accounting Dictionary List), a wrong service designator code [e.g., V (Atlantic Fleet units) or N (Shore activities) vice R (Pacific Fleet units)] and a missing character in UIC and/or service designator blocks.

Julian date errors may involve Julian dates outside the period for which obligation and disbursement of funds is authorized. They also include invalid Julian dates, such as a fiscal year with more than 366 days and a missing character in the Julian date block.

Serial number errors are errors on the serial block of the document, such as missing characters in the four digit serial number.

After all expenditures in the error listings were coded by the natures of errors, they were sorted and summarized by requisitioning activity and by the types of error. A summary

of NSA expenditure errors (Table 1) was developed. It contains the nature and number of errors, total charges and credits, and total money value. A list of activities (UICs) with over 25 errors during that six month period (Table 2) was also developed. This list shows the total number of discrepancies in descending order, the UIC, and the natures of the errors. Another table (Table 3) similar to Table 2 was created for Special Accounting Class (SAC) 207 ships. Table 3 was presented, in order to separate the SAC 207 ships' errors from the others.

B. DATA ANALYSIS

The purpose of this study was to find the causes which prevented large numbers of expenditure documents from being processed by the FRAM system and to identify the activities which contributed most of the problems. Examinations of all the data collected (see Table 1) show that approximately 83 percent of the total errors were due to wrong fund codes. A comparison of the totals for Tables 2 and 3 shows that 52.6 percent of the total fund code errors originated from Special Accounting Class (SAC) 207 ships.

1. Assumptions

In analyzing the data, two assumptions were made. First, it was assumed that the COG on the expenditure document was correct, because it was validated and corrected, if necessary, at the stock point when the requisition was

TABLE 1

SUMMARY OF NSA EXPENDITURE ERRORS (DEC 89 - MAY 90)

Type of Error	Number	Percentage
Fund code	14,321	83.1%
Unit Identification Code	2,584	15.0%
Julian Date	306	1.8%
Serial Number	14	.1%
Total	17,225	100.0%

Charges and Credits	Number	Percentage
Charges	13,642	79.2%
Credits	3,583	20.8%
Total	17,225	100.0%

Dollar Value (Net of Charges and Credits) = $ 10,644,111.02

TABLE 2

NSA EXPENDITURE ERRORS > 25 (DEC 89 - MAY 90)

Activity	UIC	Type and Number of Errors					
		Fund Code					
		Total	End-Use*	UIC	Date	Serial#	Total
CSS-17	R53886	3,444		0	3	0	3,447
SSN-725	R21367	1,014	(980)	0	0	0	1,014
SSN-701	R20826	730	(720)	7	0	0	737
CV-41	R03341	529	(455)	2	17	0	548
LCC-19	R05840	410		0	1	0	411
VA-127	R08956	379		5	6	0	390
SSN-680	R20043	367	(366)	0	0	0	367
NavResCon	R52731**	0		311	0	0	311
SSN-721	R21100	301	(293)	1	0	0	302
LKA-116	R05847	248		0	3	0	251
AD-42	R21047	239	(235)	0	0	0	239
AFS-7	R20118	206	(183)	0	0	0	206
ASR-21	R20143	179		0	2	0	181
CV-61	R03361	175	(144)	0	1	0	178
CV-64	R03364	163	(69)	0	2	0	165
LPH-3	R07351	149	(147)	0	0	0	149
SSN-752	R21413	140	(114)	0	0	0	140
FltTrnGrp	R57063	140		0	0	0	140
VQ-3	R09923	132		1	0	2	135
CV-62	R03362	134	(60)	0	0	0	134
SSN-603	R05111	131	(32)	0	0	0	131
VT ACFT	R52993	130	(130)	0	0	0	130
MALS-13	R57082	126	(69)	1	1	0	128
AO-107	R04807**	0		127	0	0	127
MSO-427	R07957	123		0	0	0	123
MALS-11	R09111	106	(71)	1	5	0	112
SSN-665	R05147	111	(103)	0	0	0	111
AS-37	R20132	109	(82)	0	0	0	109
AS-41	R21118	109	(81)	0	0	0	109
LHA-3	R20633	106	(102)	0	0	0	106
CV-65	R03365	106	(74)	0	0	0	106
MALS-39	R09808	104	(44)	0	0	0	104
FF-1054	R54049	98		0	0	0	98
HSL-31	R52783	97		0	0	0	97
MALS-12	R09112	88	(63)	0	0	0	88
SSN-621	R05127	82	(80)	0	0	0	82
CV-68	R03368	75	(66)	0	4	0	79
FFG-60	R21391	79		0	0	0	79
MALS-24	R09124	75	(68)	1	0	0	76
LPH-10	R07198	75	(64)	0	0	0	75
SSN-754	R21463	73	(41)	2	0	0	75

TABLE 2 (CONTINUED)

Activity	UIC	Type and Number of Errors					
		Fund Code					
		Total	End-Use*	UIC	Date	Serial#	Total
ILM-41	R68828	70		2	3	0	75
AS-19	R04629	71	(66)	0	0	0	71
CGN-35	R52712	68		0	2	0	70
LPH-11	R07202	65	(63)	0	2	0	67
FFG-9	R21033	67		0	0	0	67
LHA-1	R20550	65	(59)	0	0	0	65
CVN-70	R20993	63	(29)	2	0	0	65
AE-25	R08301	60		0	3	0	63
VXE-6	R09589**	0		63	0	0	63
VFA-125	R09485	48	(4)	3	5	0	56
AFS-4	R05835	55	(41)	0	0	0	55
MALS-16	R09116	53	(50)	2	0	0	55
SSN-677	R05725	46	(42)	6	0	0	52
MALS-36	R09136	52	(37)	0	0	0	52
SSN-594	R05057	48	(46)	0	0	0	48
VX-4	R09830	2		39	7	0	48
SSN-713	R20994	48	(46)	0	0	0	48
ARS-52	R21579**	0		46	0	0	46
MC AirSta	R62974	16		30	0	0	46
VP-1	R09618	44		1	0	0	45
SSN-613	R05121	44	(36)	0	0	0	44
AGF-11	R07194	44		0	0	0	44
AFS-3	R05834	43	(17)	0	0	0	43
SSN-652	R05139	36	(34)	5	0	0	41
HMM-161	R09440	0		0	41	0	41
SSN-662	R05143	27	(22)	13	0	0	40
AFS-1	R05831	40		0	0	0	40
FFG-25	R20978	40		0	0	0	40
ARD-30	R05380	39	(33)	0	0	0	39
SSN-612	R05120	38	(34)	0	0	0	38
SSN-683	R20345	37		0	0	0	37
SIMA SF	R68831	1		33	3	0	37
AD-43	R21063	32	(16)	0	0	0	32
NAS ALAMED	R00236	31		0	0	0	31
AOR-1	R05849	19		9	3	0	31
SBU-21	R42221	27		1	2	1	31
FF-1055	R54050	31		0	0	0	31
LSD-42	R21804**	0		30	0	0	30
VA-122	R09355	19	(1)	8	1	0	28
SIMA PEARL	R68251	19	(10)	9	0	0	28
FFG-38	R21105	26		1	0	0	27
AO-145	R05905**	0		26	0	0	26

TABLE 2 (CONTINUED)

Activity	UIC	Type and Number of Errors					
		Fund Code					
		Total	End-Use*	UIC	Date	Serial#	Total
AOR-5	R20124	22		4	0	0	26
SIMA SD	R65918	26	(19)	0	0	0	26
HML-267	R09159	2		0	23	0	25
FFG-10	R21034	25		0	0	0	25
CG-52	R21345	25		0	0	0	25
TOTAL		12,716	(5,641)	794	140	3	13,653

* Numbers in parentheses in the End-Use column represent cases in which SAC 207 ships used end-use fund codes instead of their own codes. These numbers are included also in the Total columns.

** Not in FAADCPAC's fleet accounting master dictionary list

TABLE 3

SAC 207 NSA EXPENDITURE ERRORS > 25 (DEC 89 - MAY 90)

Activity	UIC	Type and Number of Errors					
		Fund Code					
		Total	End-Use*	UIC	Date	Serial#	Total
SSN-725	R21367	1,014	(980)	0	0	0	1,014
SSN-701	R20826	730	(720)	7	0	0	737
CV-41	R03341	529	(455)	2	17	0	548
SSN-680	R20043	367	(366)	0	0	0	367
SSN-721	R21100	301	(293)	1	0	0	302
AD-42	R21047	239	(235)	0	0	0	239
AFS-7	R20118	206	(183)	0	0	0	206
CV-61	R03361	175	(144)	0	1	0	178
CV-64	R03364	163	(69)	0	2	0	165
LPH-3	R07351	149	(147)	0	0	0	149
SSN-752	R21413	140	(114)	0	0	0	140
CV-62	R03362	134	(60)	0	0	0	134
SSN-603	R05111	131	(32)	0	0	0	131
VT ACFT	R52993	130	(130)	0	0	0	130
MALS-13	R57082	126	(69)	1	1	0	128
MALS-11	R09111	106	(71)	1	5	0	112
SSN-665	R05147	111	(103)	0	0	0	111
AS-37	R20132	109	(82)	0	0	0	109
AS-41	R21118	109	(81)	0	0	0	109
LHA-3	R20633	106	(102)	0	0	0	106
CV-65	R03365	106	(74)	0	0	0	106
MALS-39	R09808	104	(44)	0	0	0	104
MALS-12	R09112	88	(63)	0	0	0	88
SSN-621	R05127	82	(80)	0	0	0	82
CV-68	R03368	75	(66)	0	4	0	79
MALS-24	R09124	75	(68)	1	0	0	76
LPH-10	R07198	75	(64)	0	0	0	75
SSN-754	R21463	73	(41)	2	0	0	75
AS-19	R04629	71	(66)	2	3	0	71
LPH-11	R07202	65	(63)	0	2	0	67
LHA-1	R20550	65	(59)	0	0	0	65
CVN-70	R20993	63	(29)	2	0	0	65
VFA-125	R09485	48	(4)	3	5	0	56
AFS-4	R05835	55	(41)	0	0	0	55
MALS-16	R09116	53	(50)	2	0	0	55
SSN-677	R05725	46	(42)	6	0	0	52
MALS-36	R09136	52	(37)	0	0	0	52
SSN-594	R05057	48	(46)	0	0	0	48
SSN-713	R20994	48	(46)	0	0	0	48

TABLE 3 (CONTINUED)

Activity	UIC	Type and Number of Errors					
		Fund Code					
		Total	End-Use*	UIC	Date	Serial#	Total
SSN-613	R05121	44	(36)	0	0	0	44
AFS-3	R05834	43	(17)	0	0	0	43
SSN-652	R05139	36	(34)	5	0	0	41
SSN-662	R05143	27	(22)	13	0	0	40
ARD-30	R05380	39	(33)	0	0	0	39
SSN-612	R05120	38	(34)	0	0	0	38
AD-43	R21063	32	(16)	0	0	0	32
VA-122	R09355	19	(1)	8	1	0	28
SIMA PEARL	R68251	19	(10)	9	0	0	28
SIMA SD	R65918	26	(19)	0	0	0	26
TOTAL		6,690	(5,641)	65	41	0	6,793

* Numbers in parentheses in the End-Use column represent cases in which SAC 207 ships used end-use fund codes instead of their own codes. These numbers are included also in the Total columns.

processed. Second, it was assumed that FAADCPAC's Fleet Master Dictionary was updated and contained the correct data necessary to validate the data elements in the expenditure documents. The UICs and authorized fund codes of the activities with greater than 25 errors were used to test this assumption. The UICs were checked with FAADCPAC's fleet master dictionary and the list of the Navy UICs in Chapter 5 of NAVCOMPT Manual Volume II [Ref. 8] to ensure that the dictionary contains a complete and correct list of Pacific Fleet UICs. The fund codes listed in the fleet master dictionary for the same UICs (with greater than 25 errors) were verified against the list of authorized fund codes in NAVSO P-3013-2 [Ref. 3] to ensure that they are also correct. There was no discrepancy found in either the UICs or the fund codes.

2. NSA Expenditure Documents Received and Errors

The expenditure documents that FAADCPAC receives every week are held until the end of the month for reconciliation with the monthly summaries and details, as discussed in Chapter II. They are loaded into the FRAM system on the first week of the following month and the expenditure error listing is created thereafter. Therefore, the current month's errors are from the batch of expenditures (NAVCOMPT 2074s) that were received in the previous month. For example, the NAVCOMPT 2074s for the month of March were loaded on April and the errors appeared on the April expenditure error listings.

In order to get the percentage of error, the number of errors has to be compared with the number of expenditures received. There was difficulty in getting reliable counts of six consecutive months' 2074s that can be compared with the errors, so only three months were used in the comparison. There were 676,487 NSA expenditures (2074s) received from January to March with 7,680 errors. This shows that approximately 1.14 percent of the total NSA expenditures contained invalid data that prevented them from processing through the FRAM system. The percentage of error may appear to be low, but the actual volume of transactions and total dollar value involved are large enough to require special management attention at FAADCPAC.

3. **Nature of Errors**

Table 1 shows the summary of NSA expenditure errors. There were 17,255 errors from December 1989 to May 1990. A breakdown of these discrepancies is as follows: 14,321 in the fund code, 2,584 in the UIC, 306 in the Julian date and 14 in the serial number. The monthly average number of NSA expenditure errors that FAADCPAC processed was approximately 2,870. A further discussion of each type of error is provided below.

a. Fund Code

Table 4 shows the O&MN fund codes commonly used by the ships, staffs and afloat commands of the Pacific Fleet. It is noted that every Type Commander has its own fund

TABLE 4

O&MN FUND CODES FOR USE BY UNITS OF THE PACIFIC FLEET

TYCOM	PROGRAM	REIMBURSABLE WORK	NSA NON-AV PLN	CONSUMABLE NSA TYPE MATERIAL	PASSENGER VEHICLE RENTAL	NSA TYPE EQUIPMENT/EQUIPAGE	CIVILIAN PERSONNEL	NSA CONSUMABLES - ROV (TENDERS AND REPAIR SHIPS ONLY)	NSA REPAIR PARTS - ROV (TENDERS AND REPAIR SHIPS ONLY)	MINOR CONSTRUCTION ($15,000.01 - $200,000.00) AND MAINTENANCE OF REAL PROPERTY	ADP RENTAL/CONTRACT SERVICES	CHARTER AND BIRS	PURCHASED EQUIPMENT MAINTENANCE - SERVICE CRAFT AND BOATS(PRIVATE)	TAD TRAINING	TAD CREW ROTATION/DEPLOYMENT	TRANSPORTATION OF THINGS (See Table XI)	TAD ADMIN (ESSENTIAL/CRITICAL) AND TEMPORARY SHORE PATROL
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
CINCPACFLT	1	--	--	--	--	--	--	--	--	GI/GO	--	--	--	--	--	--	--
CINCPACFLT	2	RA	RB	RC	RD	RE	RF	--	--	II/IO	RJ	RK	RL	RM	RN	RP	RQ
CINCPACFLT	3	PA	PB	PC	PD	PE	PF	--	--	OI/OO	PJ	--	--	PM	PN	PP	PQ
CONSUBPAC	1	SA	SB	SC	SD	SE	SF	SG	SH	--	SJ	SK	--	SM	SN	SP	SQ
CONSUBPAC	2	HA	HB	HC	HD	HE	HF	HG	HH	--	HJ	HK	HL	HM	HN	HP	HQ
CONSUBPAC	3	--	--	--	--	--	JF	--	--	--	--	--	--	--	--	--	JQ
CONNAVAIRPAC	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CONNAVAIRPAC	2	LA	LB	LC	LD	LE	LF	LG	LH	--	LJ	LK	LL	LM	LN	LP	LQ
CONNAVAIRPAC*	2	YA	YB	YC	YD	YE	YF	--	--	--	YJ	YK	--	YM	YN	YP	YQ
CONNAVAIRPAC	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CONNAVSURFPAC**	1	UA	UB	UC	UD	UE	UF	UG	UH	--	UJ	--	--	UM	UN	UP	UQ
CONNAVSURFPAC	2	NA	NB	NC	ND	NE	NF	NG	NH	--	NJ	NK	NL	NM	NN	NP	NQ
CONNAVLOGPAC	2	PA	PB	PC	PD	PE	PF	PG	PH	--	PJ	VK	PL	PM	PN	PP	PQ
CONCBPAC	2	BA	BB	BC	BD	BE	BF	--	--	--	--	BK	BL	BM	BN	BP	BQ
CONTRAPAC	2	SA	SB	SC	SD	SE	SF	--	--	--	SJ	SK	SL	SM	SN	SP	SQ
COMTHIRDFLT	2	AA	AB	AC	AD	AE	AF	--	--	--	AJ	AK	AL	AM	AN	AP	AQ
NAVSUPPFOR-ANTARCTICA	2	DA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SIMA San Diego	2	VA	VB	VC	VD	VE	VF	VG	VH	--	VJ	VK	VL	VM	--	--	VQ
SIMA San Diego**	1	--	--	--	--	--	--	XG	XH	--	--	--	--	--	--	--	--

* (Staff Use Only)

** Applies to Appropriation 17-1806 only

Source: Table VI of NAVSO P-3013-2 [Ref. 3]

TABLE 4 (CONTINUED)

TYCOM	PROGRAM	EMN/NSA TYPE REPAIR PARTS	COMMUNICATIONS	PURCHASED EQUIPMENT MAINTENANCE - SERVICE CRAFT AND BOATS (PUBLIC)	OTHER PURCHASED SERVICES	ORDERS FOR PRINTING AND PUBLICATIONS	PURCHASED UTILITIES	MAINTENANCE OF REAL PROPERTY AND MINOR CONSTRUCTION	AUDIO-VISUAL	NSA NON-AV DLR-ROV (TENDERS AND REPAIR SHIPS ONLY)	HULL & STRUCTURAL (FACILITIES) MAINTENANCE PRESERVATION	NOT ASSIGNED	MSC CHARTER	TRAVEL - SPECIAL AIRCRAFT CHARTER	MEDICAL/DENTAL	SPECIAL STORAGE HHG	PETROLEUM, OIL & LUBRICANTS OTHER (POL OTHER)	INDUSTRIAL PLANT EQUIPMENT 1/	TAD (ADMIN-NON-ESSENTIAL NON-CRITICAL) SHORE BASED 1/	PMS ADMIN TRAVEL
		(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
CINCPACFLT	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CINCPACFLT	2	RR	RS	RT	RU	RV	--	--	RY	--	--	--	R4	R5	R7	R8	R9	3A	6A	4Q
CINCPACFLT	3	PR	PS	--	PU	PV	--	--	PY	--	--	--	--	--	--	P8	P9	3M	6C	--
CONSUBPAC	1	ZR	ZS	--	ZU	ZV	--	--	ZY	Z1	Z2	--	Z4	Z5	Z7	Z8	Z9	3H	6D	--
CONSUBPAC	2	MR	MS	MT	MU	MV	--	--	MY	M1	M2	--	M4	M5	M7	M8	M9	3B	6R	--
CONSUBPAC	3	--	--	--	--	--	--	--	JY	--	--	--	--	--	--	J8	--	--	--	--
COMNAVAIRPAC	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3Q	--	--
COMNAVAIRPAC	2	LR	LS	LT	LU	LV	--	--	LY	L1	L2	--	--	L5	L7	L8	L9	3C	6G	--
COMNAVAIRPAC*	2	YR	YS	--	YU	YV	--	--	YY	--	--	--	--	--	--	Y8	Y9	3C	--	--
COMNAVAIRPAC	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3P	--	--
COMNAVSURFPAC**	1	UR	US	--	UU	UV	--	--	UY	U1	U2	--	--	--	U7	U8	U9	3K	6L	--
COMNAVSURFPAC	2	NR	NS	NT	NU	NV	--	--	NY	N1	N2	--	N4	N5	N7	N8	N9	3D	6K	--
COMNAVLOGPAC	2	PR	PS	PT	PU	PV	--	--	PY	P1	P2	--	P4	P5	--	P8	--	3G	6R	--
COMCBPAC	2	BR	BS	BT	BU	BV	--	--	BY	--	--	--	--	B5	B7	B8	B9	3L	6B	--
COMTRAPAC	2	SR	SS	ST	SU	SV	--	--	SY	--	--	--	--	S5	--	S8	S9	3E	6J	--
COMTHIRDFLT	2	AR	AS	AT	AU	AV	--	--	AY	--	--	--	--	A5	--	A8	A9	3R	6M	--
NAVSUPPFOR-ANTARCTICA	2	--	--	--	--	--	--	--	DY	--	--	--	--	--	--	D8	--	--	--	--
SIMA San Diego	2	VR	VS	VT	VU	VV	VW	VX	VY	V1	--	--	--	--	--	V8	V9	3F	--	--
SIMA San Diego**	1	--	--	--	--	--	--	--	XY	X1	--	--	--	--	--	X8	--	--	--	--

* (Staff Use Only)
** Applies to Appropriation 17-1806 only
1/ Used only by shore based commands/activities which are not normally deployed or rotated

Source: Table VI of NAVSO P-3013-2 [Ref. 3]

code(s), that is (are) assigned for each major category of materials or services. Table 5 shows the SAC 207 fund codes, which are used by SAC-207 ships when ordering materials from shore supply activities. In light of the information in these two tables, the assignment of the wrong fund code on a requisition document can cause the expenditure to be charged to the wrong Type Commander, wrong category of material or wrong type of fund.

From all the data that were collected for analysis, there were 14,321 fund code errors, which accounted for 83.1 percent of total errors, as shown in Table 1. The examination of the transactions from activities with greater than 25 errors during the six month period (see Table 2) indicated that the majority of the fund code errors came from SAC 207 ships. Further analysis was conducted on SAC 207 activities with greater than 25 errors (see Table 3). This showed that 84.3 percent (5,641/6690) of the fund code errors were due to the assignment of end-use (vice 207) fund codes when requisitioning materials from shore supply activities. SAC 207 activities are required to use SAC 207 fund codes, which are chargeable to Navy Stock Fund, when requisitioning materials from shore supply activities. The assignment of end-use fund codes cause the material expenditures to be charged to Operation and Maintenance, Navy (O&MN) funds.

TABLE 5

SPECIAL ACCOUNTING CLASS (SAC) 207 FUND CODES

Fund Code	Cog Symbol
CZ	1H, 3H
DZ	1I
GZ	1Q
JZ	7E, 7G, 7H, 7Z, 7N
KZ	All Other 9 and 5 Cogs (Except 9X & 5R)
RZ	1R, 5R
UZ	9X
VZ	7R

Source: Appendix 2 of NAVSUP P-540 [Ref. 1]

There were other types of fund code errors found in the sample, such as a fund code incompatible with the COG and UIC. Most of these errors were due to the assignment of a different Type Commander's fund code on the requisition document. Another common problem was the use of a Depot Level Repairable (DLR) fund code on a non-DLR material requisition or a non-DLR fund code for DLR items. The 3,444 errors for CSS-17 (R53886), shown in Table 2, was a "one time" problem of assigning fund codes which were authorized for repair ships only. CSS-17 is one of the submarine squadrons and not a repair ship.

The following are possible implications of fund code related errors:

1. Expenditures may be charged to the wrong operating budget or Type Commander. This can happen when an error is made on the first position of the 2-digit fund code. The first position of the fleet unit's fund code generally tells the billing activity which Type Commander to charge for the expenditure.

2. Expenditures may be recorded for the wrong type of materials. Although this error does not affect the balance of available funds, it does cause inaccuracy in the cost accounting for different categories of materials. It can happen when the error occurs on the second position of the 2-digit fund code, which identifies the type of material or service the money is being spent for.

3. Expenditures may be charged to the wrong type of fund. The use of end-use vice 207 fund codes by SAC 207 ships when they order their materials from shore supply activities can cause the expenditures to be charged to appropriated funds (normally to O&MN) instead of the Navy Stock Fund.

4. Expenditures cannot be processed through the FRAM system to match and liquidate the outstanding obligations.

b. Unit Identification Code (UIC)

UIC-related problems accounted for 15 percent (2,584) of the total errors (17,225). There are 639 errors (324 UICs) due to invalid UICs, 436 due to missing service designator codes on the expenditure documents, and 1,509 (259 UICs) due to the wrong FIPC/AAA for a UIC. Invalid UICs are those not listed in Chapter 5, Volume II of the Navy Comptroller Manual. Most expenditures with invalid UICs and missing service designator codes appear to be due simply to typographical errors.

Some expenditures for activities other than Pacific Fleet units were incorrectly forwarded to FAADCPAC because they had been assigned a service designator code "R" (meaning Pacific Fleet unit) instead of the correct code.

The UIC related errors can cause the expenditures to be charged to the wrong activity(UIC) and Type Commander. This type of problem normally takes longer to correct because of the difficulty of identifying the originator of the requisition document. The UIC errors, like all other errors, prevent the expenditures from processing through the FRAM system to match and liquidate outstanding obligations.

c. Julian Date

There were 306 Julian date discrepancies (1.8 percent of the total). The number is very small in comparison with fund code and UIC problems. They were mostly typographical errors, which included missing characters and dates

over 366 days in a given fiscal year. There were some expenditures for past years that were received after the cutoff date for disbursement of those years' appropriations. In this case, if the expenditure is valid, it is paid with money from the "M" account.

d. Serial Number

There were only 14 errors due to serial number discrepancies (.1 percent). They were missing one or more characters on the four character block and appeared to be typographical errors.

4. Credit Transactions

The error listings contained large numbers of credit transactions. Of the total 17,225 expenditure errors from December to May, 13,642 (79.2 percent) were charges and 3,583 (20.8 percent) were credits (negative expenditures). Gross totals of charges and credits separately were not computed; however, the net value (charges minus credits) of the expenditure errors from December 1989 to May 1990 was found to be $10.6 million. Further investigation showed that most of the credits were the results of excess materials returned by afloat units to the supply shore activities. The rest of the credit transactions were mainly adjustments to the original expenditure/billing documents. There was no indication that the mere fact that they were credit transactions contributed to the problem. They were rejected for the same reasons that

the charges failed the validation process (e.g., wrong fund code, invalid UIC, etc.).

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

Analysis of the collected data shows that the largest numbers of NSA expenditure errors at FAADCPAC were caused by the use of the wrong fund codes by the fleet units when they requisitioned their materials from the shore supply activities. The fund code errors accounted for 83 percent of the total discrepancies. The remaining 17 percent was divided among the other three types of errors, in UICs, in Julian dates and in serial numbers. Most of the fund code errors were committed by SAC 207 ships, whose main failure was the use of end-use, instead of SAC 207 fund codes when they prepared and submitted their requisitions for materials to shore supply activities.

The fund code, UIC, Julian date and serial number are part of the information on the requisition document, which information is provided by the fleet units and used by the shore supply activities as input data in the requisition and accounting processes. The errors in these data elements are carried over from the supply activity, which processes the requisition and issues the materials, to FAADCPAC, which receives and process the expenditures/billings. These input errors prevent the expenditure transactions from processing through the FRAM system.

Those four types of errors significantly delay the NSA expenditure process and contribute to the amount of undistributed disbursements (payments which have not been matched with their corresponding obligations). The UIC and fund code errors can also cause the material charges to be charged to the wrong operating budget or Type Commander, wrong type of materials or wrong type of funds.

B. RECOMMENDATIONS

In order to minimize the number of NSA expenditure errors and to improve the current accounting process, five recommendations are provided. The first three are corrective and the last two are preventive measures.

1. FAADCPAC should produce a monthly statistical summary of the NSA expenditure errors for internal use. The data should include, at a minimum, the activities listed by UICs, the numbers and types of errors for each activity, and their dollar value. This would provide the managers at FAADCPAC with the basic tool necessary to identify specific problems and the activities which cause them. It could be used as a "score card" to evaluate and monitor the performance of each activity. The distribution of these data to units affected, via their Type Commander, would be a way of informing them of the discrepancies and might stimulate competition among units striving for performance awards and lead to the reduction of erroneous transactions.

2. FAADCPAC should mechanize the proces of correcting expenditure errors. It needs to look at the possibility of using its computers to correct the errors. Integration of the computer systems may be necessary to accomplish this objective. For example, in order to find the missing character of the Julian date in an expenditure document, the correction program should be able to read it from the obligation records, which may be located in a different data base or computer system at FAADCPAC. Also, to look for the correct fund code, there are lists of authorized fund codes for each activity, which are available from the data base that contains the fleet master dictionary. The efficient automation of the correction process would reduce the man-hours being spent by the accounting technicians in resolving expenditure problems.

3. Although FAADCPAC's accounting technicians are currently doing well in processing expenditure error, there may be some occasions when shortage of personnel or unusually large numbers of expenditure errors may cause a huge backlog. In this situation, a "dollar value" criterion should be used in correcting erroneous transactions. This means that the accounting technicians need to process the high money value item first. This method can keep the dollar value of undistributed disbursements to the minimum at any given time.

4. FAADCPAC should conduct additional training on requisition preparation for supply personnel on board ships.

Supply personnel who prepare the requisition documents must be fully trained in the proper assignment of MILSTRIP codes, especially the fund codes, in order to prevent expenditure errors. This could be done by the FAADCPAC's Fleet Assist Team, which visits the ships to provide assistance and training.

5. FAADCPAC should sponsor or conduct a cost/benefit analysis of having an edit/validation program at the Navy stock points. The program should be designed, like the one at FAADCPAC, to check the validity of the fund code, UIC, and Julian date and the compatibility of fund code with UIC and COG when the requisitions are processed at the shore supply activities. If this could be efficiently implemented, it could help to identify and correct the problems at an early stage of the process, when the originator and the causes of these errors could easily be traced. This program could minimize the expenditure errors at FAADCPAC and other Navy accounting activities.

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